Attorney's Docket No.: 11033-063001 / A9942US-DJL

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Paul Mills
Serial No. : 09/728,395
Filed : December 1, 2000
Title : PACKAGING CONTROL WITH TRANSLATION OF COMMAND PROTOCOLS

Art Unit : 3721
Examiner : John Roger Paradiso

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF UNDER 37 CFR 1.132

1. My present position is Software Platform and Product Line Manager at Markem Technologies Limited, a position I have held since October 2003. Before that I was Engineering Manager at Markem Technologies Limited from June 2002 until October 2003 and prior to that have held the same positions but during different time periods from August 1995. Before that I graduated from Oxford Brookes University with a masters degree in Business Administration. My first higher education qualification was in Electrical and Electronic Engineering in which I specialized in software systems. I am familiar with and have nine years of experience in computerized packaging system control. This experience has been developed over the years I have worked with Markem being responsible for the development of a software based packaging equipment control system as well as numerous items of package coding equipment such as thermal transfer printers. Previous to this I spent ten years in the business of road traffic monitoring and data communication systems for use of the public highway. Computer control and communication means were at the heart of these systems.

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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2. I have read the above-captioned patent application, the Office Action therein dated January 29, 2004, the Reply to Office Action of July 1, 2003 therein, and Komiya U.S. Patent No. 6,155,025 discussed in the Office Action and Reply.

3. The patent application describes a system which automatically packages a plurality of individual articles into packs at a "packing means" (e.g., an automated packing machine), and collecting the packs together into packaged units, each of which includes a plurality of the packs, at a "means to collect", e.g., a palletizer. Along the way, individual articles are marked at first marking means; the packs are marked at a second marking means, and the packaged units are marked at a third marking. There also are first, second and third conveying means for conveying the packs and packaged units, and a control means that controls operation by instructions sent over a data bus using a common computer protocol. Each of the individual first, second and third marking means and the means to collect are connected to the data bus by "respective connecting means," each of which includes "means to translate data bus commands appropriate to that component into a command protocol which is read by the connected component which responds by performing a productive function, whereby the control means is able to control each of the connected components independent of command protocols recognized by the connected components."

4. In such an automated packaging system, it is typical that some if not all of the components, such as the first, second and third marking means, the packing means, the means to collect, may emanate from alternative manufacturers, or even when from the same manufacturer may be of different generations or otherwise may be incompatible from a control point of view. Each of the connected components requires the appropriate command protocols, which typically would be particular to a specific component, in order to perform a productive function such as "print" or "wrap."

5. The patent application describes using a common computer protocol by the control means, and having the respective connecting means for each of the components then translate the commands from the control means to the command protocol actually used by the connected component, as is described at page 7 of the specification.

6. With the system described in the application, if one needs to replace one of the components with a new component, (e.g., and updated printer) there is no need to reprogram the controlling computer, because each component includes a "respective connecting means" each of which includes "means to translate" computer control commands appropriate to that component into a command protocol which is read by the connected component. Thus, the computer controller would only ever have to instruct the item of equipment to operate (e.g., "print") and this command would be translated by the connecting means to a command appropriate to the particular item of equipment, i.e., no re-programming of the computer controller is required merely because a replacement printer, or other item of equipment, has been inserted into the packaging system.

7. Komiya does not explicitly describe such a system, and there is no reason to assume from what is said in Komiya that the system described in Komiya would have "respective connecting means," each of which includes "means to translate data bus commands appropriate to that component into a command protocol which is read by the connected component" such that the control means is able to control each of the connected components independent of command protocols recognized by the connected components.

8. I have in particular reviewed the passages of Komiya referenced in the office action, namely, columns 4-6 and 9-12 and the Figures 1, 2 and 19. These passages and figures merely describe how a controller controls various mechanisms and patterns and how computer 66 controls various process controllers. Komiya nowhere discloses or suggests a "respective connecting means" for each of a first, second and third marking means and for a means to collect where each respective connecting means includes a "means to translate data bus commands appropriate to that component into a command protocol which is read by the connected component which responds by performing a productive function, whereby the control means is able to control each of the connected components independent of command protocols recognized by the connected components."

9. In the office action it is asserted that the missing "means to translate" claim limitations can be considered to be present in Komiya under principles of inherency in the following passage.

> Note that KOMIYA ET AL. does not specifically refer to the data bus that transmits signals and translations of commands from the controller to the peripheral units, however, these limitations are inherent in the invention of KOMIYA ET AL: the connecting of a elements of a machine with a controller, such as connecting a printer or floppy drive to a computers CPU or connecting remote sensors and machine control circuits to a PLC, is inherent in structure and is necessary when any components are connected via a data bus to a controller. The same principle applied to a means for translating data bus commands: if this were not so, the above examples of a computer would not be able to communicate with or recognize the printer of floppy drive and the example of a machine with remote sensors and control circuits would not be able to communicate or receive instructions from the PLC.

10. I disagree with the examiner's conclusion. There is no reason to assume that each component has a "respective connecting means" with a means to translate the data bus commands to commands appropriate to the specific device. Instead, it is more likely to assume Komiya envisaged that if an item of equipment were to be replaced, it would be replaced by an item which operates according to the same protocol (as the one being replaced) or else, that the computer controller is reprogrammed (e.g., to use a new driver for the new component) to cope with such a new item of equipment.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

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